

Enabling National Instruments to Drive Power Electronics Circuits

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The power electronics circuits have interfaces to the microcontroller to enable their operation and controls. National instruments products are common for data acquisition but less common for hardware in the loop control of power electronics. In this project we have demonstrated that the NI myDAQ hardware can be used to control DC-DC converters and AC-DC rectifiers despite having limited analog input and output ports.

The control command and measured parameters of the system demonstrate very accurate switching and control. LabVIEW programing and other details will be demonstrated.

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